

What is claim d is:

1. A swash plate compressor for sucking working fluid and then compressing/discharging the sucked working fluid, the compressor comprising:

5 a housing defining therein a cylinder bore and a cylindrical swash plate chamber;

a piston inserted into the cylinder bore, said piston including:

a piston axis,

10 a tail protruding into the swash plate chamber, and

a stopper face formed on the tail, for preventing said piston from rotating around the piston axis, the stopper face being located adjacently to an inner circumferential surface of said swash plate chamber and extending along a 15 circumferential direction of the swash plate chamber;

a driving device for causing said piston to reciprocate in the cylinder bore, said driving device including:

20 a rotatable drive shaft extending in the swash plate chamber in parallel with said piston and having a shaft axis,

a swash plate mounted on the drive shaft and rotating with the drive shaft, and

25 a pair of shoes retained in the tail of said piston, for sandwiching the swash plate at an outer periphery thereof to convert the rotation of the swash plate into the reciprocation of said piston, the shoe having a receiving face for receiving the outer periphery of the swash plate and a central point of the receiving face located so as to 30 deviate from a common plane, the common plane including both the piston axis and the shaft axis; and

a valve device for performing a sucking process of sucking the working fluid into the cylinder bore and a

compressing/discharging process of the sucked working fluid in cooperation with the reciprocation of said piston.

2. The compressor according to claim 1, wherein:

the central point deviates from the piston axis in the
5 circumferential direction of the swash plate.

3. The compressor according to claim 2, wherein:

the central point is located upstream of the piston
axis in view of a rotating direction of the swash plate.

4. The compressor according to claim 2, wherein:

10 the central point further deviates from the piston
axis in view of a radial direction of the swash plate.

5. The compressor according to claim 4, wherein:

the central point is located inwardly from the piston
axis in the radial direction of the swash plate.

15 6. The compressor according to claim 3, wherein:

the central point further deviates from piston axis in
view of a radial direction of the swash plate.

7. The compressor according to claim 6, wherein:

the central point is located inwardly from the piston
20 axis in the radial direction of the swash plate.

8. The compressor according to claim 1, wherein:

the central point deviates from the piston axis in
view of a radial direction of the swash plate.

9. The compressor according to claim 8, wherein:

25 said central point is located inwardly from the piston
axis in the radial direction of the swash plate.

10. the compressor according to claim 8, wherein:

the central point deviates from the piston axis in
view of a circumferential direction of the swash plate.

30 11. The compressor according to claim 10, wherein:

the central point is located upstream of the piston
axis in the rotating direction of the swash plate.

12. The compressor according to claim 9, wherein:

the central point deviates from the piston axis in view of a circumferential direction of the swash plate.

13. The compressor according to claim 12, wherein: the central point is located upstream of the piston
5 axis in the rotating direction of the swash plate.

14. The compressor according to claim 1, wherein: the tail of said piston deviates from the piston axis in view of a radial direction of said piston so that the central point is located off the common plane.